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REMARKS

The Invention.

The presently claimed invention provides for a novel endoglucanase nucleic acid sequence, designated eg/6, and the corresponding EGVI amino acid sequence, as well as proteins having at least 95% identity thereto. The invention also provides expression vectors and host cells comprising a nucleic acid sequence encoding EGVI and recombinant EGVI proteins.

Status of the Application.

Claims 2, 4-17, 19-20, 22-24 and 26 are pending in the application. Claims 2 and 8 have been amended herein. Support for this amendment may be found throughout the specification as filed. Applicants assert new matter has not been introduced by the amendment.

35 U.S.C. §112, first paragraph.

Claims 2, 5-17, 19-20 and 26 stand rejected under 35 USC §112, first paragraph as failing to be described in the specification. Specifically, the Examiner asserts that the claim scope is not commensurate with the enablement provided by the disclosure with regard to the extremely large number of polynucleotides broadly encompassed by the claims. Applicants respectfully traverse.

Applicants have amended the claims to recite 95% sequence identity. In addition, the enzyme must possess endoglucanase activity. Therefore, the claims would encompass naturally occurring endoglucanases and variant endoglucanases that possess endoglucanase activity and have at least 95% sequence identity with EG VI as defined in the present specification.

The first paragraph of 35 U.S.C. § 112 requires, *inter alia*, that the specification of a patent enable any person skilled in the art to which it pertains to make and use the claimed invention. Although the statute does not say so, enablement requires that the specification teach those in the art to make and use the invention without 'undue experimentation.' In re Wands, 858 F.2d 731, 737, 8 USPQ2d 1400, 1404 (Fed. Cir. 1988). That some experimentation may be

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required is not fatal; the issue is whether the amount of experimentation required is 'undue.' *Id.* at 736-37, 8 USPQ2d at 1404. *In re Vaeck*, 947 F.2d 488, 495, 20 USPQ2d 1438, 1444 (Fed. Cir. 1991).

The question is whether the disclosure is sufficient to enable those skilled in the art to practice the claimed invention; the specification need not disclose what is well known in the art. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 1463, 221 USPQ 481, 489 (Fed. Cir. 1984) (citing *In re Myers*, 410 F.2d 420, 161 USPQ 668 (CCPA 1969)). "A patent need not teach, and preferably omits, what is well known in the art." *Spectra-Physics, Inc. v. Coherent, Inc.*, 827 F.2d 1524, 1534, 3 USPQ2d 1737, 1743 (Fed. Cir. 1987). "Not every last detail is to be described, else patent specifications would turn into production specifications, which they were never intended to be." *In re Gay*, 309 F.2d 769, 774, 135 USPQ 311, 316 (CCPA 1962).

The fact that Applicants do not explicitly provide examples regarding every polynucleotide encompassed by the present invention does not render the present claims unpatentable. The Specification teaches the DNA and protein sequence of EG VI. Techniques were well known in the art on how to compare the protein with other proteins and have a reasonable expectation of success, and for determining enzyme activity (e.g., using standard assays). Beginning with the sequence provided one of skill in the art would know how to proceed if they wanted to generate variants – compare the sequence with known related sequences, identifying in the three-dimensional structure at least one structural part of the parent cellulase; modifying the nucleic acid sequence encoding the parent cellulase to produce a nucleic acid sequence encoding a variant of the parent cellulase having a deletion, insertion, or substitution of one or more amino acids at a position corresponding to said structural part; and expressing the modified nucleic acid sequence in a host cell to produce the variant. All of the methods and techniques were familiar to the skilled artisan and are not required to be taught in the specification. Thus, Applicants respectfully request that this rejection be withdrawn.

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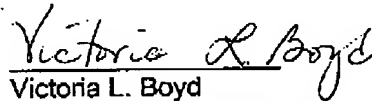
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CONCLUSION

In light of the above amendments, as well as the remarks, the Applicants believe the pending claims are in condition for allowance and issuance of a formal Notice of Allowance at an early date is respectfully requested. If a telephone conference would expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (650) 846-7615.

Respectfully submitted,
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